



City of Sunnyvale

Agenda Item-No Attachments (PDF)

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REPORT TO COUNCIL

SUBJECT

Award of Contract for Wastewater Treatment Chemicals for the Water Pollution Control Plant (F15-87)

REPORT IN BRIEF

Council approval is requested to award a one-year contract in the amount of \$750,000 to Polydyne Inc. of Riceboro, Georgia, for the purchase of Polymer for wastewater treatment processes. Approval is also recommended to delegate authority to the City Manager to renew the contract for up to five additional one-year periods, subject to available funding, acceptable pricing and service, and the City's participation in the Bay Area Chemical Consortium (BACC) regional purchasing cooperative described below. Finally, authorization is requested to increase the contract within budgeted appropriation limits if additional quantities are needed.

These recommendations are consistent with those approved by Council in 2014 for the purchase of Sodium Bisulfite and (small amounts of) Sodium Hydroxide, other chemicals used in wastewater treatment processes. Aligning multiple chemical purchases with the BACC will create bidding efficiencies and result in volume pricing discounts over the next several years.

EXISTING POLICY

The City may utilize purchasing cooperatives pursuant to Section 2.08.220 of the Sunnyvale Municipal Code.

ENVIRONMENTAL REVIEW

N/A.

BACKGROUND AND DISCUSSION

The Sunnyvale Water Pollution Control Plant (WPCP or Plant) uses several chemical products to treat wastewater, including but not limited to Polymer and Sodium Bisulfite.

Polymer flocculants are organic chemical compounds used in the tertiary processing of wastewater at the WPCP. The polymer bonds with solids that are dissolved with the secondary effluent to create larger particles that settle out of suspension. The solids can then be collected. Removal of suspended solids and turbidity from the wastewater stream is necessary to meet effluent limitations and other requirements of the plant's discharge permit and standards for disinfected tertiary recycled water. Polymer use at the Plant is dynamic and unpredictable, largely due to the reliance on nature to provide the environment necessary for growing algae to treat wastewater in the City's oxidation ponds.

The City typically bids wastewater treatment chemicals every three to five years based on estimated quantities. In the case of polymer, extensive analysis and testing must be conducted prior to (or during) the bidding process, and on an ongoing basis to ensure that the correct product formulation is used. The last competitive bid for Polymer was conducted in 2008, with a three-year contract being awarded to Polydyne, Inc. Subsequent contract extensions were approved by Council in 2011 and 2014 (see RTC Nos. 08-200, 11-103, and 14-0116).

Over the past three years it was critical to maintain a consistent polymer formulation while various analyses were underway to evaluate volatility in polymer demand, the relationship of effluent toxicity to the Polydyne polymer blend, and chemical optimization in the removal of algae from the oxidation ponds. The results of these studies have affirmed that the continued use of the Polydyne blend of polymer is the most effective compound for tertiary treatment at the Plant.

Bay Area Chemical Consortium Regional Purchasing Cooperative

In August 2014, Council approved a contract in the amount of \$130,000 to Univar USA, mainly for the purchase of Sodium Bisulfite (about 95% of the contract was for Bisulfite; the remainder for Sodium Hydroxide; see RTC No. 14-0773). The purchase was established in conjunction with the Bay Area Chemical Consortium (BACC), a regional procurement cooperative coordinated by the Dublin San Ramon Services District which leverages purchasing power on behalf of at least 40 Bay Area agencies.

Council approval included delegated authority for the City Manager to renew the Sodium Bisulfite contract for up to five additional one-year periods and to increase the contract within budgeted appropriation limits, subject to:

- Continued participation in the BACC bidding process
- Available budgeted funding
- Acceptable pricing and service

The BACC recently conducted its annual competitive bid for a wide variety of chemicals on behalf of participating agencies, including Polymer and Sodium Bisulfite. For a variety of factors such as chemical type, estimated volumes and proximity, the bids are structured by chemical by region, i.e., East Bay, North Bay, South Bay, etc. Sunnyvale participates in the South Bay regional grouping.

The lowest responsive bid for Sodium Bisulfite for the South Bay region was submitted by Univar USA, the City's current provider. Having met all of the conditions of the 2014 Council approval, a contract will be awarded to Univar by the City Manager under previously delegated authority.

Some of the chemicals such as Polymer, which require very specific formulations, are bid on a city-specific basis within any given region. The lowest responsive bidder for Sunnyvale's specific Polymer formulations was Polydyne, the City's current vendor. Staff recommends a one-year contract with Polydyne, along with the same recommendations that Council approved for last year's Sodium Bisulfite contract. This will facilitate a consistent bidding process with volume pricing discounts for the next several years for chemicals critical to effective wastewater treatment.

The BACC bidding process also included Ammonium Sulfate and Sodium Hydroxide, which are used

by the Plant in much smaller amounts than Sodium Bisulfite or Polymer (less than \$20,000 per year). These chemicals are chiefly used to eradicate snails when their proliferation impacts treatment processes. Contracts for these chemicals will be awarded under the City Manager's contract award authority.

FISCAL IMPACT

Although chemical usage fluctuates each year, sometimes substantially, it is estimated that \$750,000 will be needed for the one-year contract period with Polydyne. This amount may need to be increased based upon demand. It is also estimated that \$125,000 will be needed for the Univar contract for Sodium Bisulfite. Staff also anticipated spending between \$10,000 - \$20,000 for Ammonium Sulfate and Sodium Hydroxide. Budgeted funds are available in operating program 365 (Wastewater Management).

By leveraging the BACC volume purchasing power, the City obtained favorable pricing for its Polymer formulation that is \$0.262 per pound less than the current pricing (from \$1.06 to \$0.798), or a savings of nearly 25%. Though this represents a substantial savings over current pricing, the contract is proposed to be established at the same amount of \$750,000 due to the anticipated increase in recycled water production, which requires increased Polymer usage.

Savings were also achieved on the bids for Ammonium Sulfate and Sodium Hydroxide (savings for these chemicals, as well as Polymer, were anticipated due to the volume price bidding through the BACC). On the other hand, pricing for Sodium Hydroxide slightly increased by 2% over last year's BACC bid, from \$0.88 to \$0.90 per gallon. This amount is still below the \$0.95 per gallon price the City was paying before participating in the BACC bidding process.

PUBLIC CONTACT

Public contact was made by posting the Council agenda on the City's official-notice bulletin board outside City Hall, at the Sunnyvale Senior Center, Community Center and Department of Public Safety; and by making the agenda and report available at the Sunnyvale Public Library, the Office of the City Clerk and on the City's website.

RECOMMENDATION

1) Award a one-year contract to Polydyne, Inc. in the amount of \$750,000 for the purchase of Polymer; 2) Delegate authority to the City Manager to renew the contract annually for a period not-to exceed five years, provided budgeted funding is available and pricing/service remain acceptable, subject to the City's participation in the Bay Area Chemical Consortium cooperative purchasing program; and 3) Delegate authority to the City Manager to increase the annual contracts within operating program appropriation limits if additional quantities are needed for wastewater treatment processes.

Prepared by: Pete Gonda, Purchasing Officer

Reviewed by: Grace K. Leung, Director of Finance

Reviewed by: John Stufflebean, Director of Environmental Services

Reviewed by: Robert A. Walker, Assistant City Manager

Approved by: Deanna J. Santana, City Manager

ATTACHMENTS

1. Draft Blanket Purchase Order